SERVICE MANUAL
SERVICE MANUAL

STABRO

SERVICE MANUAL

SCHEMATIC SUPPLEMENT

2800/2810

(For use with 494-057-9-001)

DYNASCAN
CORPORATION

6460 West Cortland Street
Chicago, Illinois 60635

SERVICE MANUAL
SCHEMATIC SUPPLEMENT
2800/2810

INDEX

2800, DCV, 1V 496-124-9-001

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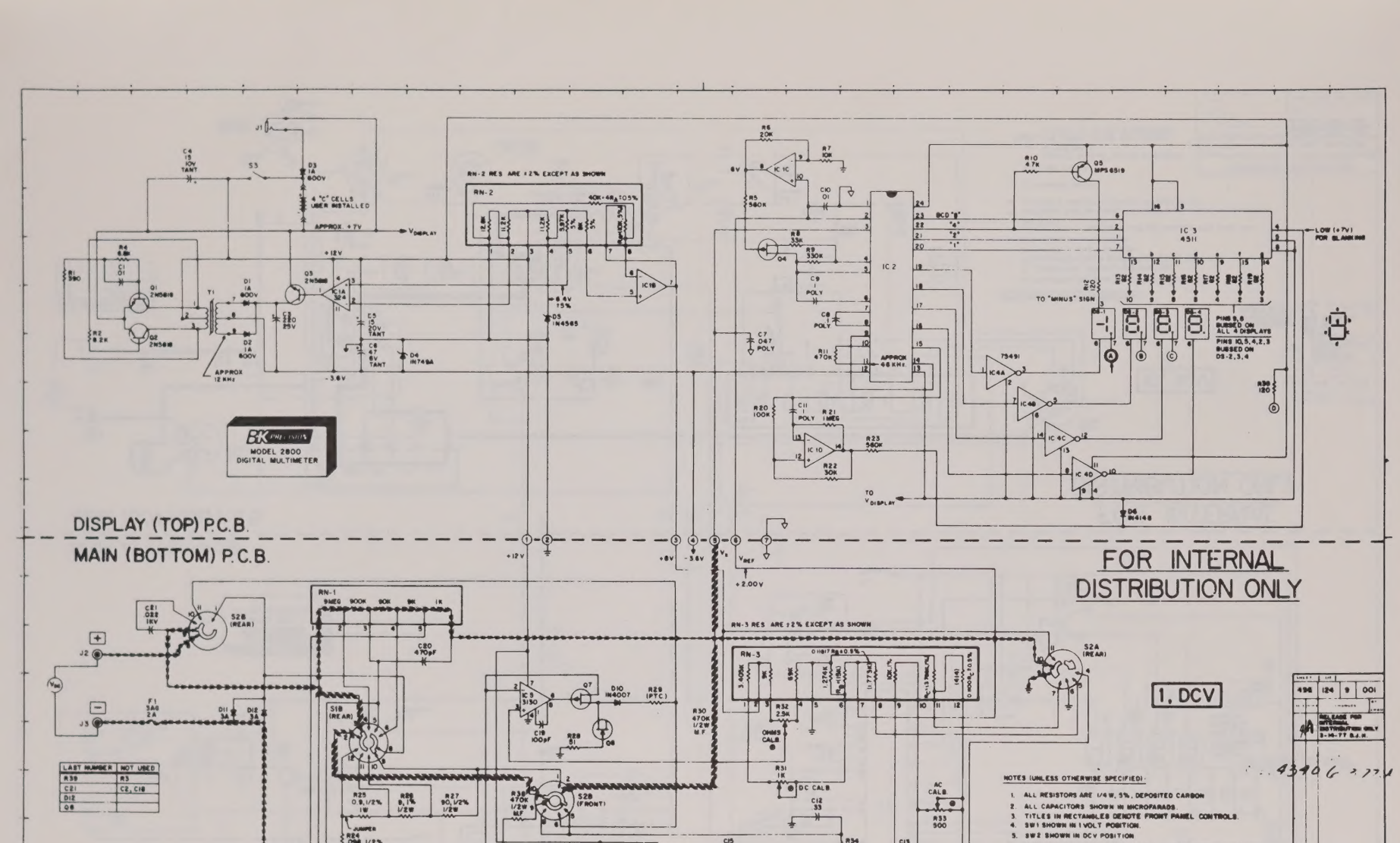
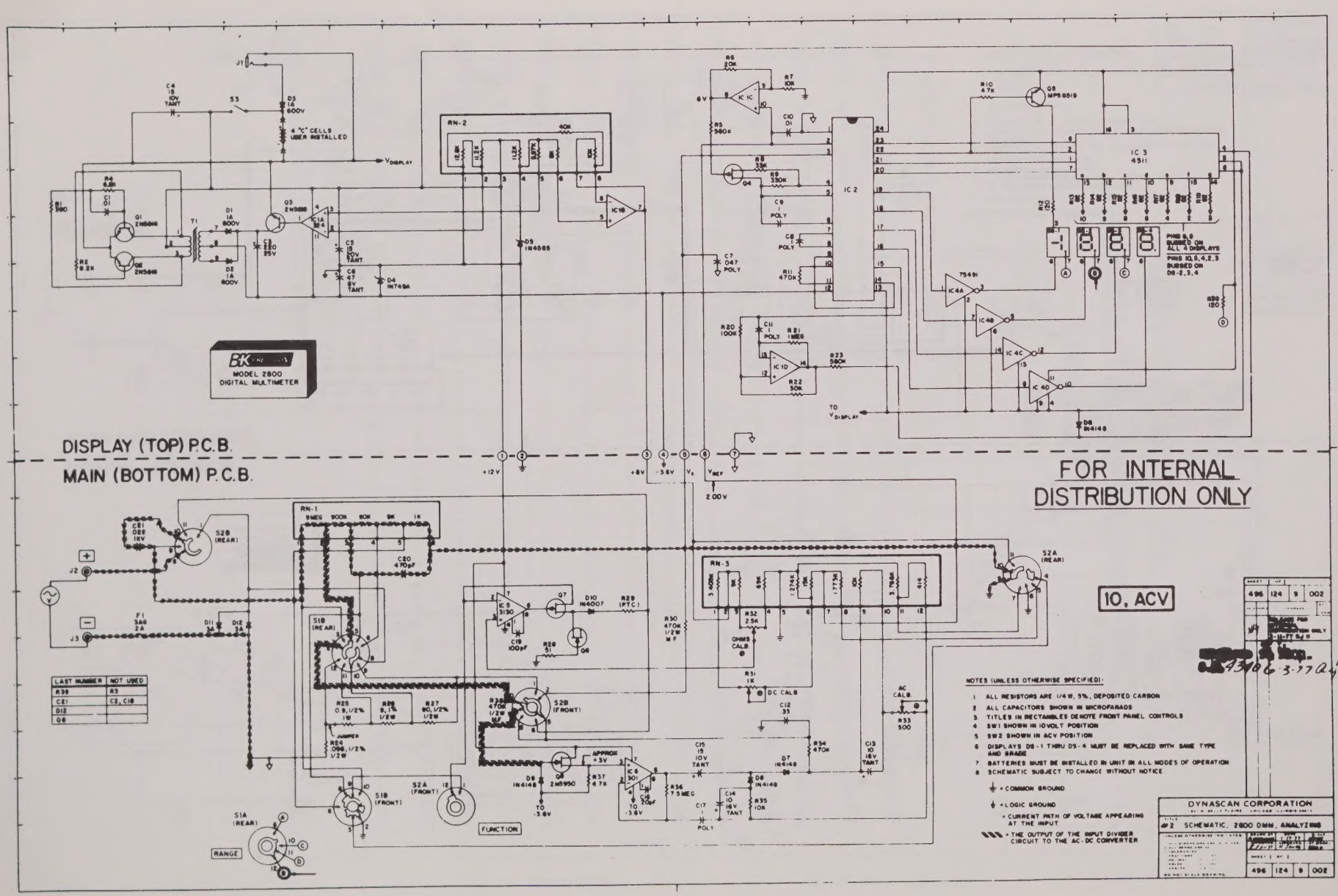
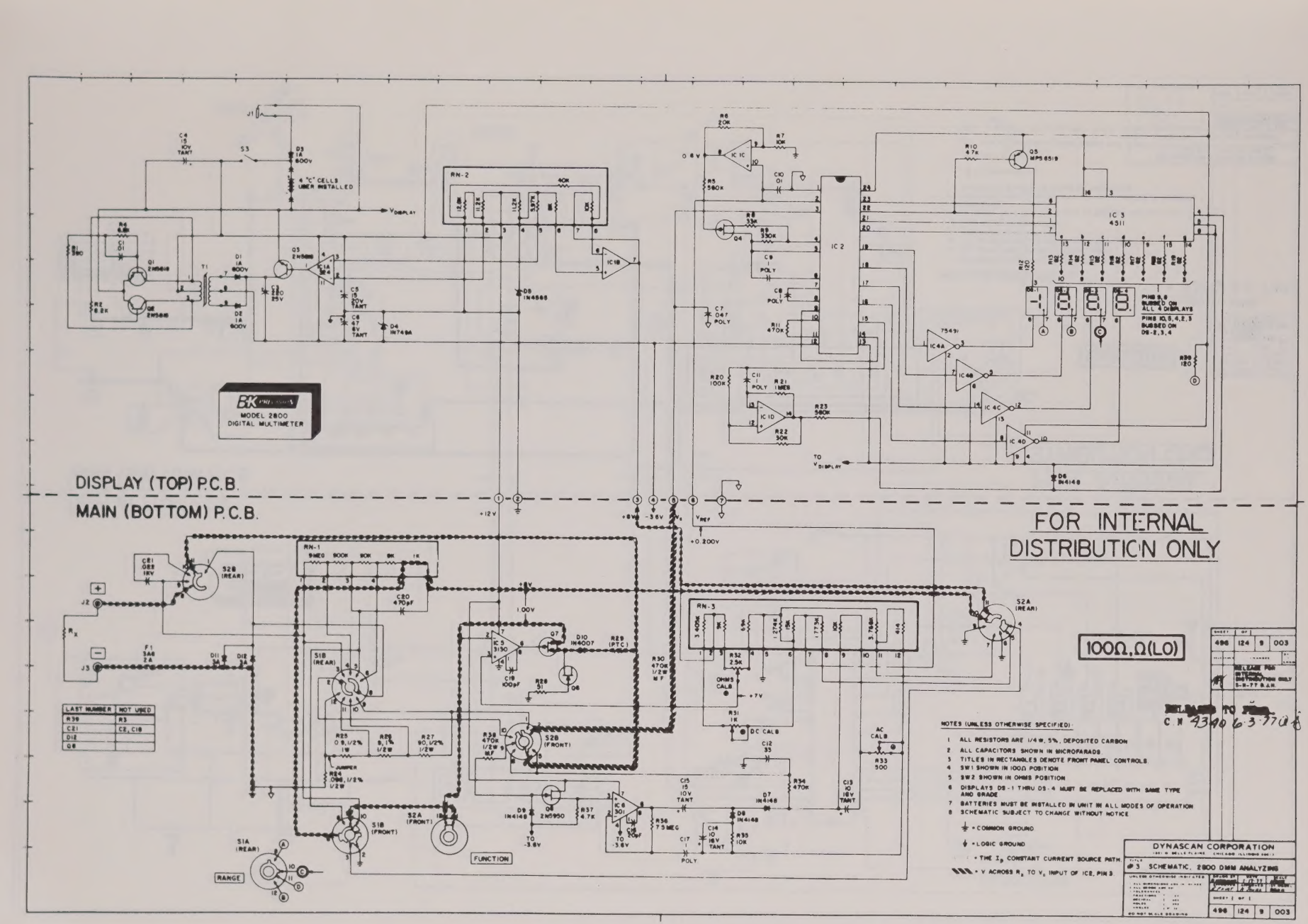
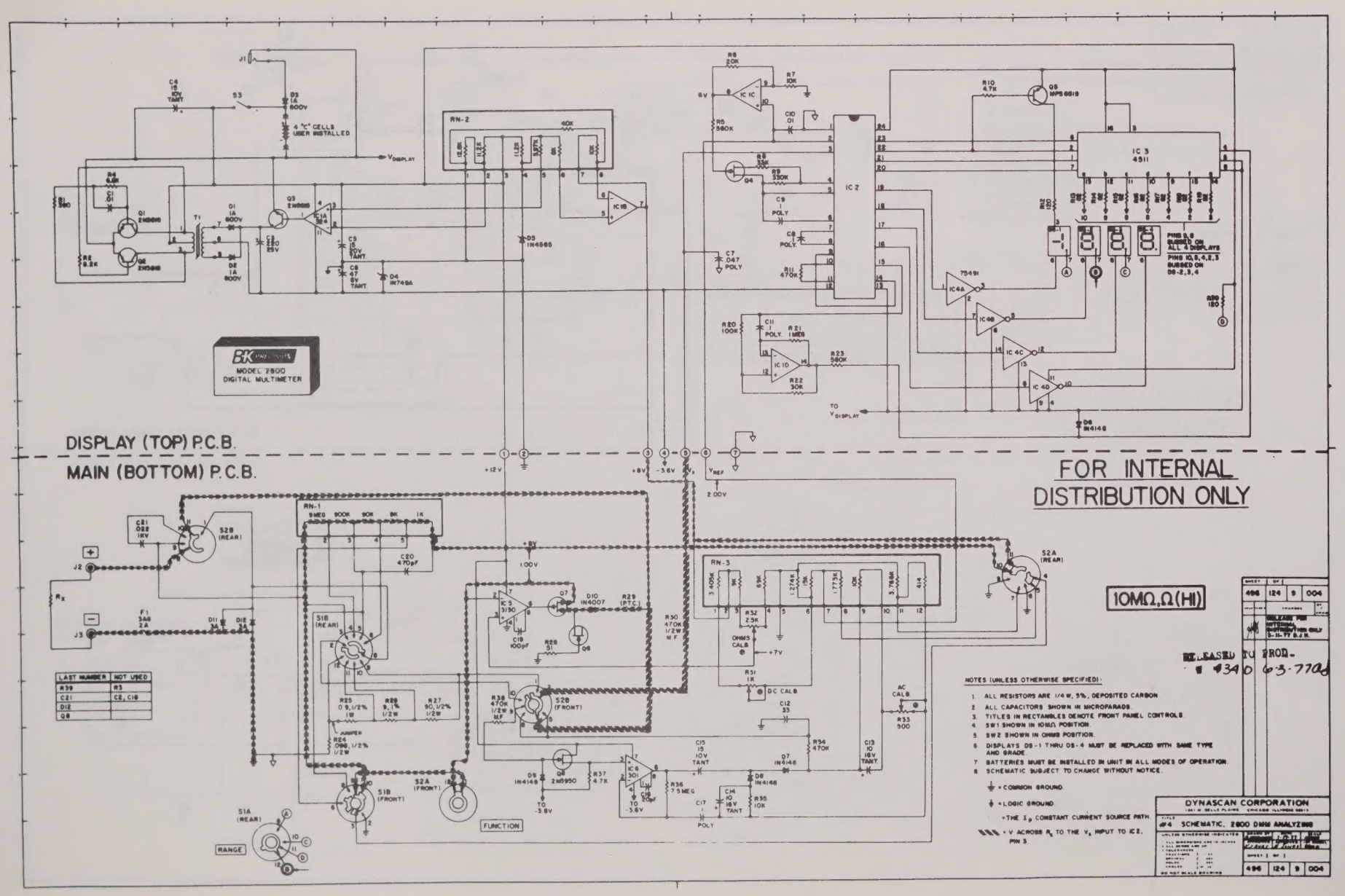
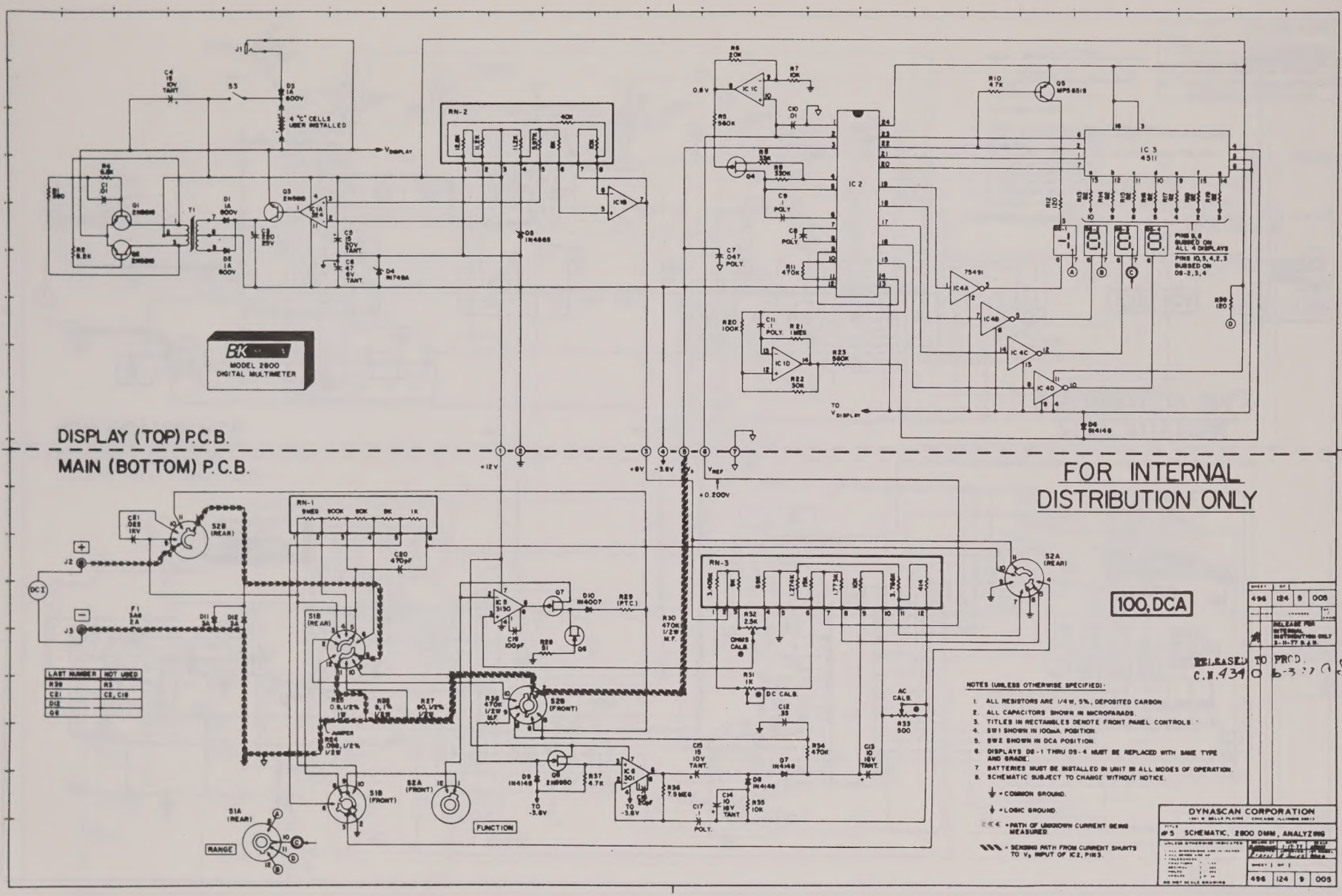
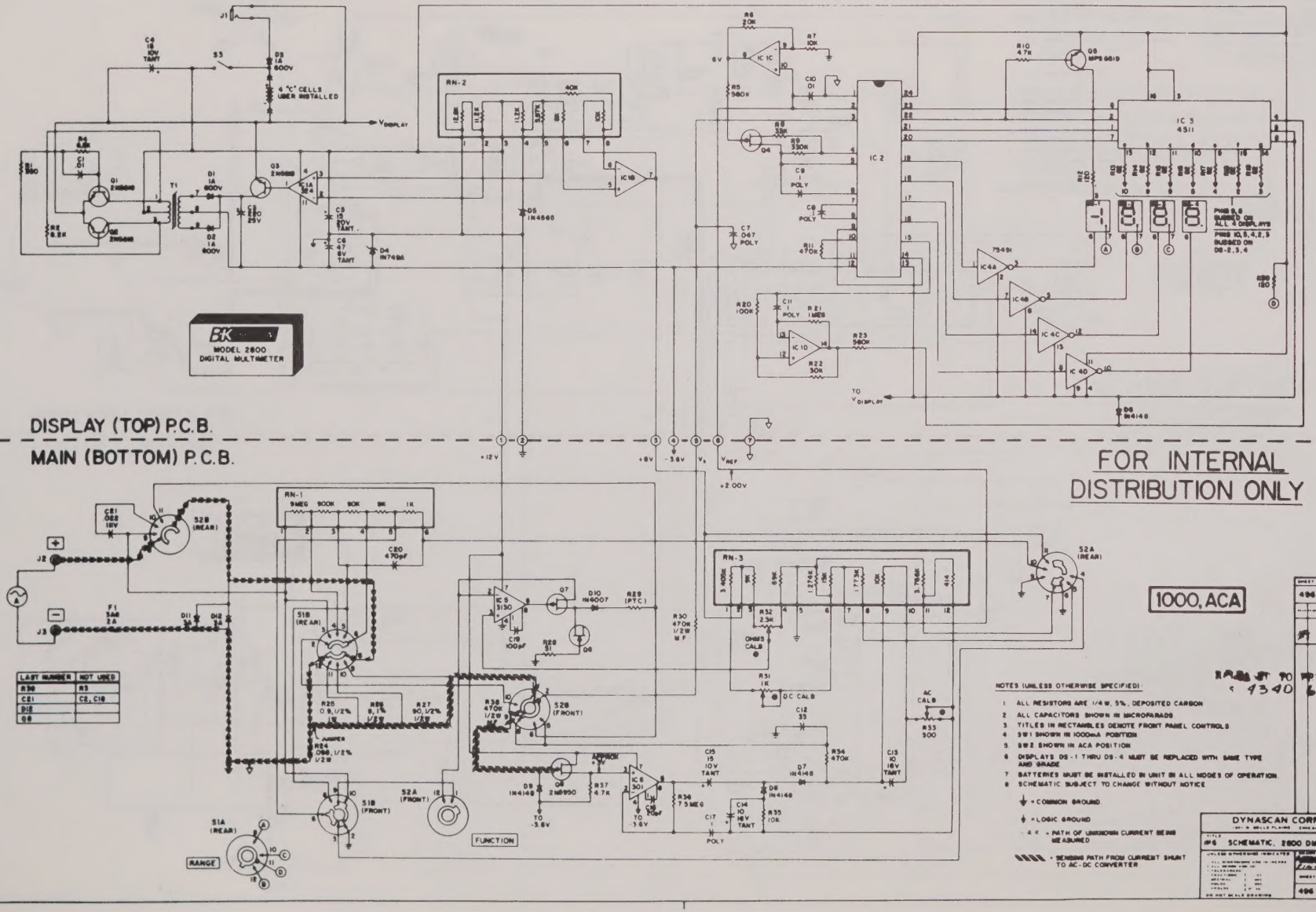

B&K PRECISION
MODEL 2800
DIGITAL MULTIMETER
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
FOR INTERNAL DISTRIBUTION ONLY
1, DCV
RN-2 RES ARE ±2% EXCEPT AS SHOWN
RN-3 RES ARE ±2% EXCEPT AS SHOWN
4 "C" CELLS USER INSTALLED
APPROX +7V
APPROX 12KHz
APPROX 68KHz
TO "MINUS" SIGN
PINS 9,8 BUSSED ON ALL 4 DISPLAYS
PINS 10,5,4,2,3 BUSSED ON DS-2,3,4
LOW (+7V) FOR BLANKING
FUNCTION
RANGE
S1A (REAR)
S1B (FRONT)
S2A (FRONT)
S2A (REAR)
S2B (REAR)
S2B (FRONT)
NOTES (UNLESS OTHERWISE SPECIFIED):
1. ALL RESISTORS ARE 1/4W, 5%, DEPOSITED CARBON
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 1 VOLT POSITION.
5. SW2 SHOWN IN DCV POSITION
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.
= COMMON GROUND
= LOGIC GROUND
= CURRENT PATH OF VOLTAGE APPEARING AT THE INPUT
= THE OUTPUT OF THE INPUT DIVIDER CIRCUIT TO V_S INPUT OF IC2, PIN 3.
DYNASCAN CORPORATION
SCHEMATIC, 2800 DMM, ANALYZER
496 124 9 001

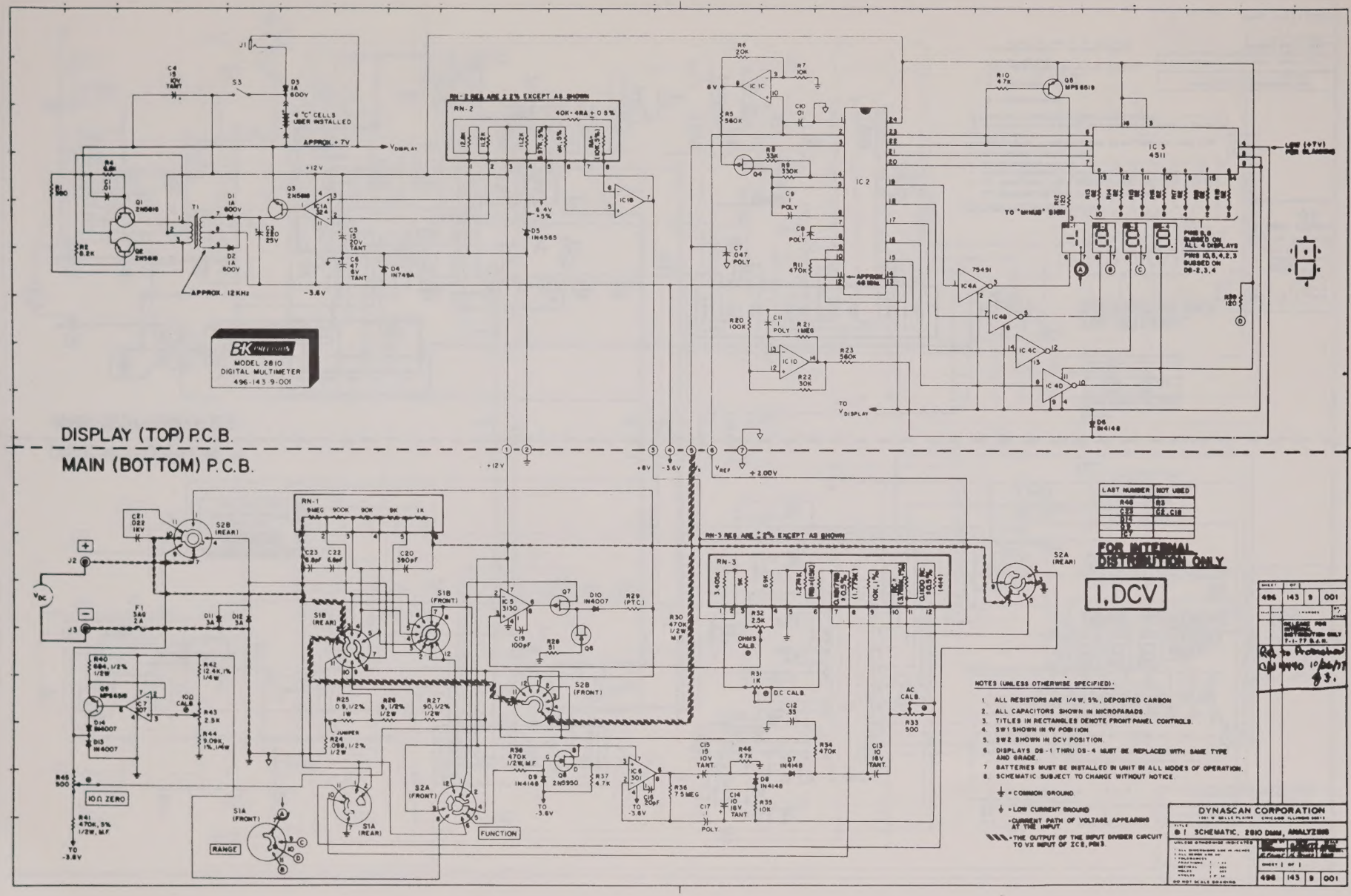

MODEL 2800
DIGITAL MULTIMETER
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
FOR INTERNAL
DISTRIBUTION ONLY
10, ACV
DYNASCAN CORPORATION
#2 SCHEMATIC, 2800 DMM, ANALYZING
496 124 9 002
NOTES (UNLESS OTHERWISE SPECIFIED):
1 ALL RESISTORS ARE 1/4W, 5%, DEPOSITED CARBON
2 ALL CAPACITORS SHOWN IN MICROFARADS
3 TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS
4 SW1 SHOWN IN 10 VOLT POSITION
5 SW2 SHOWN IN ACV POSITION
6 DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE
7 BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION
8 SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE
= COMMON GROUND
= LOGIC GROUND
= CURRENT PATH OF VOLTAGE APPEARING AT THE INPUT
= THE OUTPUT OF THE INPUT DIVIDER CIRCUIT TO THE AC-DC CONVERTER
LAST NUMBER NOT USED
R39 R3
C21 C2, C18
D12
Q8
RANGE
FUNCTION


B&K PRECISION
MODEL 2800
DIGITAL MULTIMETER
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
FOR INTERNAL
DISTRIBUTION ONLY
100Ω, Ω(LO)
RANGE
FUNCTION
DYNASCAN CORPORATION
#3 SCHEMATIC, 2800 DMM ANALYZING
496 124 B 003


B&K PRECISION
MODEL 2800
DIGITAL MULTIMETER
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
FOR INTERNAL DISTRIBUTION ONLY
10MΩ,Ω(HI)
RELEASED TO PROD.
4340 6-3-77
DYNASCAN CORPORATION
#4 SCHEMATIC, 2800 DMM ANALYZER
496 124 9 004
NOTES (UNLESS OTHERWISE SPECIFIED):
1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 10MΩ POSITION.
5. SW2 SHOWN IN OHMS POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.
= COMMON GROUND.
= LOGIC GROUND.
= THE I_p CONSTANT CURRENT SOURCE PATH.
= V ACROSS R_x TO THE V_x INPUT TO IC2, PIN 3.
LAST NUMBER | NOT USED
R39 | R3
C21 | C2, C18
D12 | D11
Q9 |
FUNCTION
RANGE


DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
MODEL 2800
DIGITAL MULTIMETER
FOR INTERNAL
DISTRIBUTION ONLY
100, DCA
RELEASED TO PROD.
C.N. 439
LAST NUMBER | NOT USED
R39 | R3
CR1 | CR, C18
D12 |
Q8 |
NOTES (UNLESS OTHERWISE SPECIFIED):
1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 100mA POSITION.
5. SW2 SHOWN IN DCA POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.
= COMMON GROUND.
= LOGIC GROUND.
= PATH OF UNKNOWN CURRENT BEING MEASURED
= SENSING PATH FROM CURRENT SHUNTS TO V- INPUT OF IC2, PIN 3.
DYNASCAN CORPORATION
#5 SCHEMATIC, 2800 DMM, ANALYZING
496 124 9 005


B&K
MODEL 2800
DIGITAL MULTIMETER
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
FOR INTERNAL
DISTRIBUTION ONLY
1000, ACA
DYNASCAN CORPORATION
#6 SCHEMATIC, 2800 DMM, ANALYZER
NOTES (UNLESS OTHERWISE SPECIFIED):
1 ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON
2 ALL CAPACITORS SHOWN IN MICROFARADS
3 TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS
4 SW1 SHOWN IN 1000mA POSITION
5 SW2 SHOWN IN ACA POSITION
6 DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE
7 BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8 SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE
= COMMON GROUND
= LOGIC GROUND
= PATH OF UNKNOWN CURRENT BEING MEASURED
= SENSING PATH FROM CURRENT SHUNT TO AC-DC CONVERTER
LAST NUMBER | NOT USED
R39 | R3
C81 | C2, C10
D12 | D3
Q8 |
RANGE
FUNCTION
AC CALB
DC CALB
OHMS CALB



LAST NUMBER	NOT USED
R46	R3
C23	C4, C18
IC14	
Q3	
IC7	

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL RESISTORS ARE 1/4W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 4V POSITION.
5. SW2 SHOWN IN DCV POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.

⏚ = COMMON GROUND.

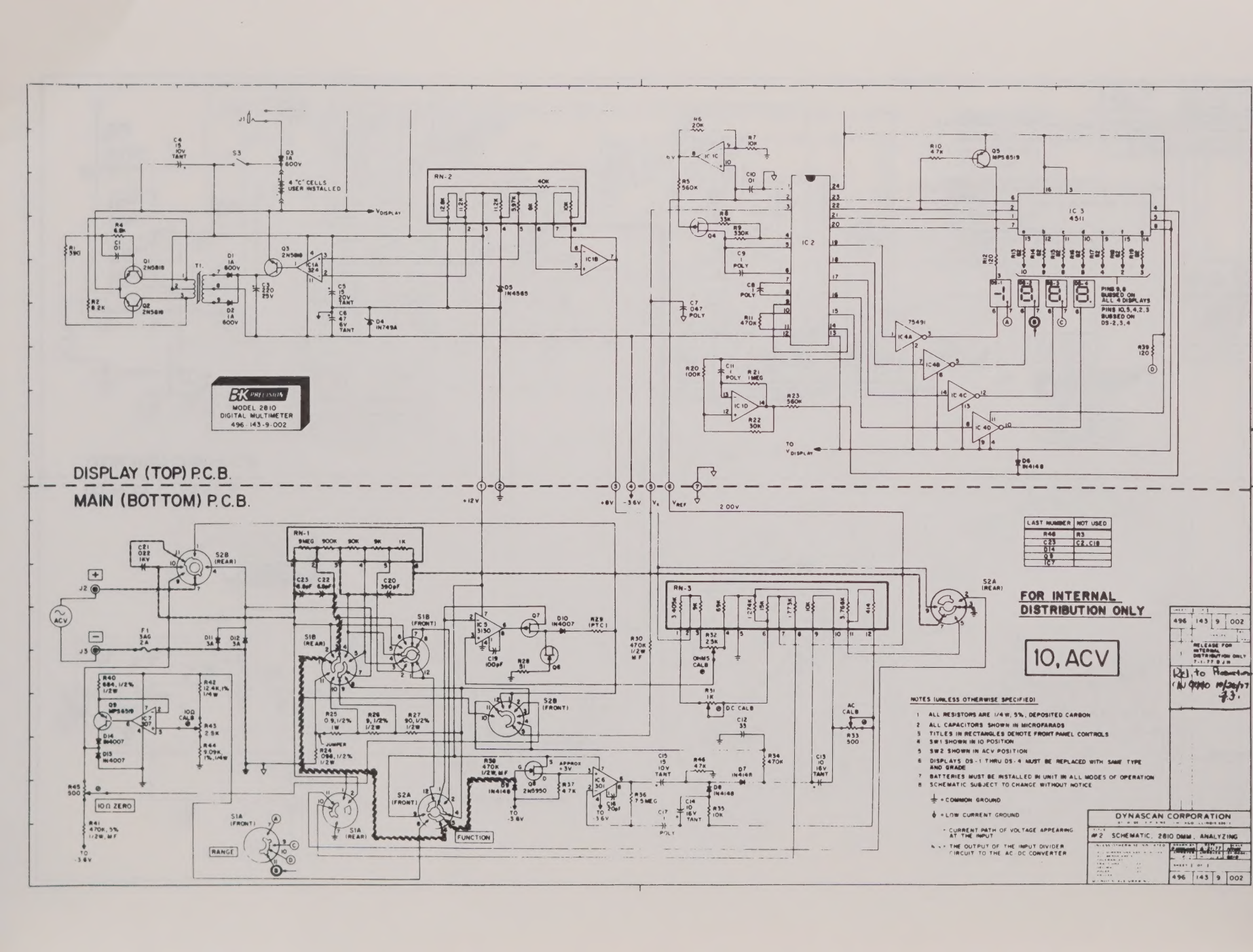
⏚ = LOW CURRENT GROUND.

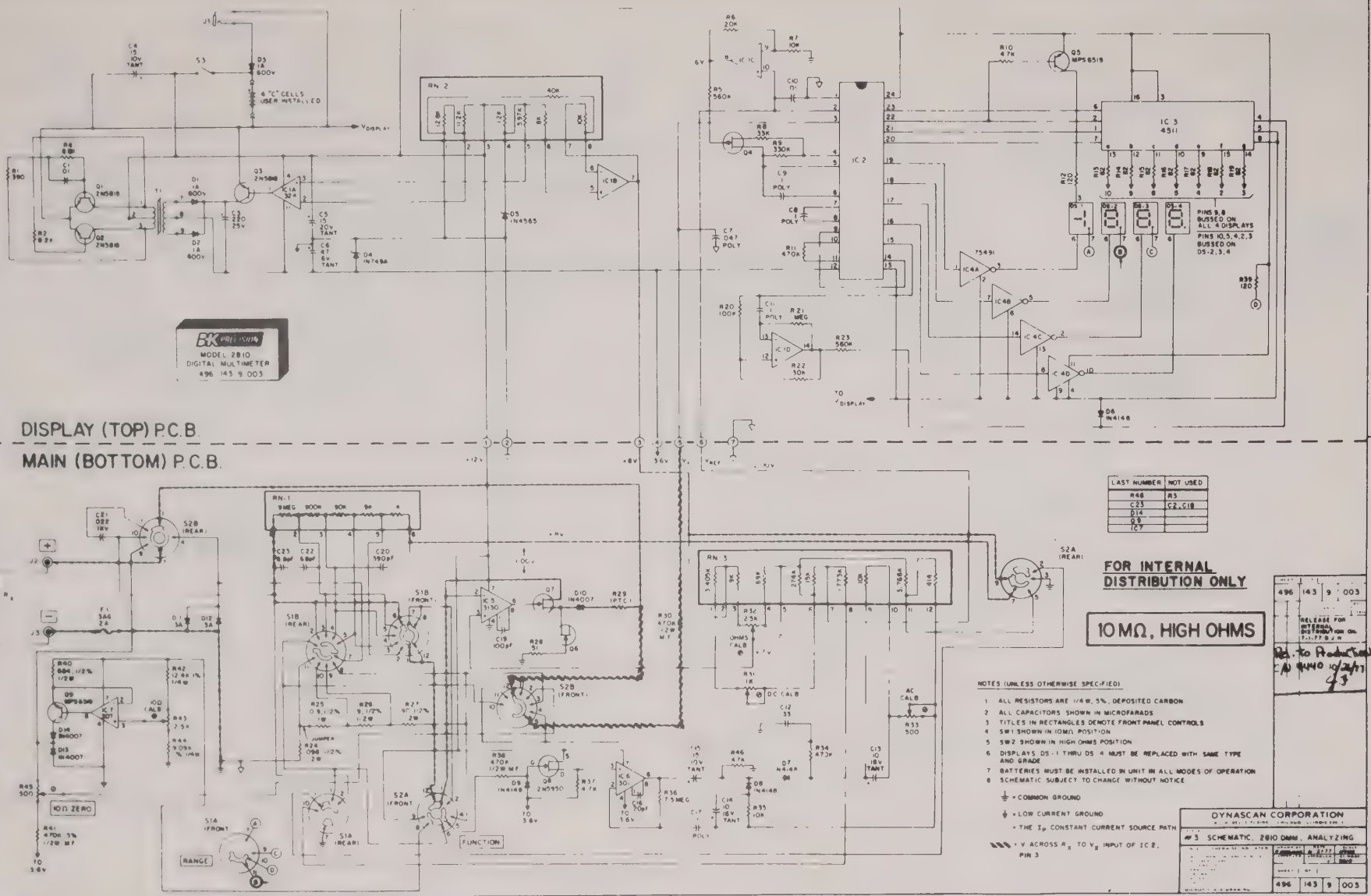
·CURRENT PATH OF VOLTAGE APPEARING AT THE INPUT.

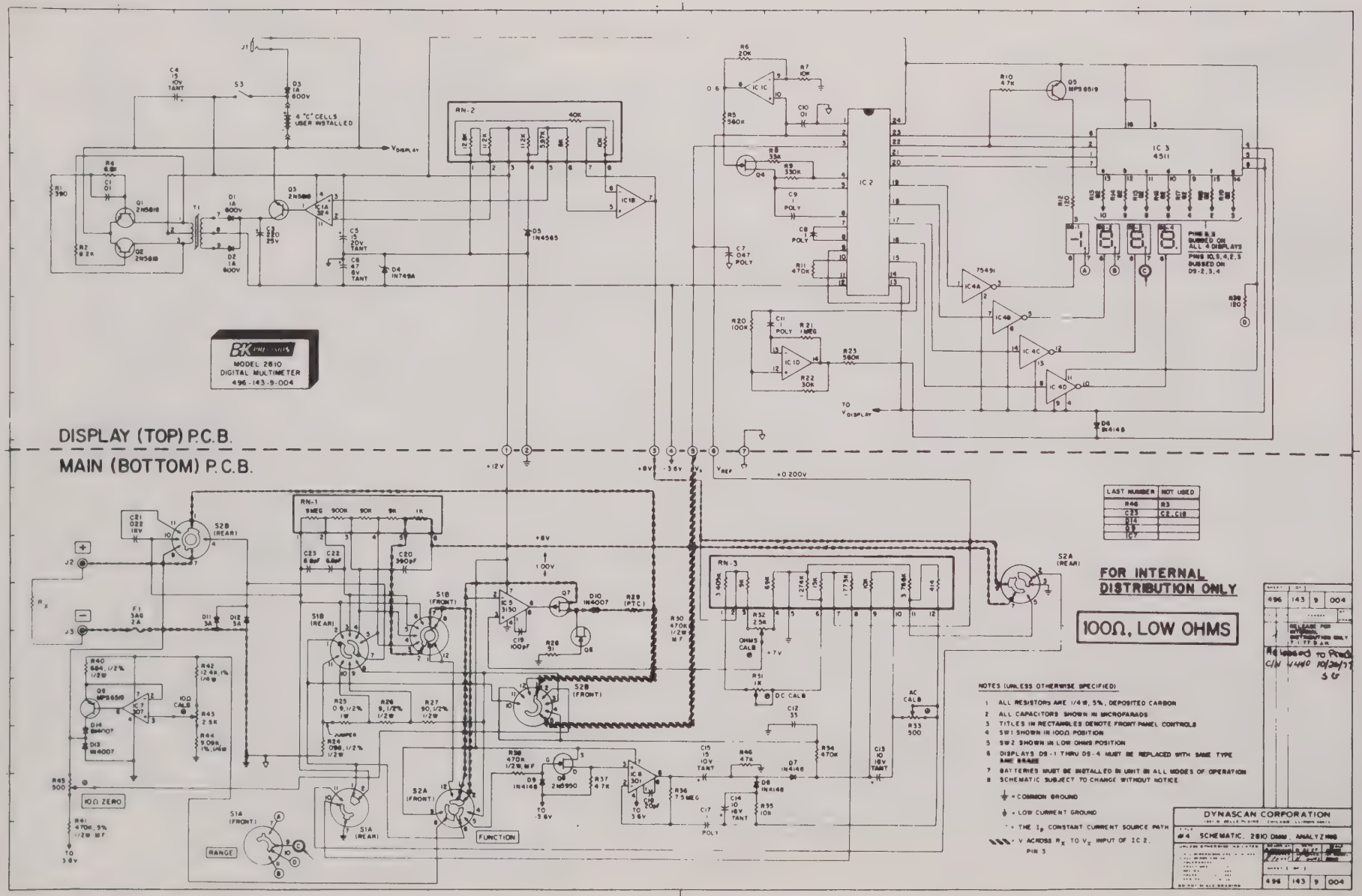
▨ = THE OUTPUT OF THE INPUT DIVIDER CIRCUIT TO VX INPUT OF ICS, PIN 3.

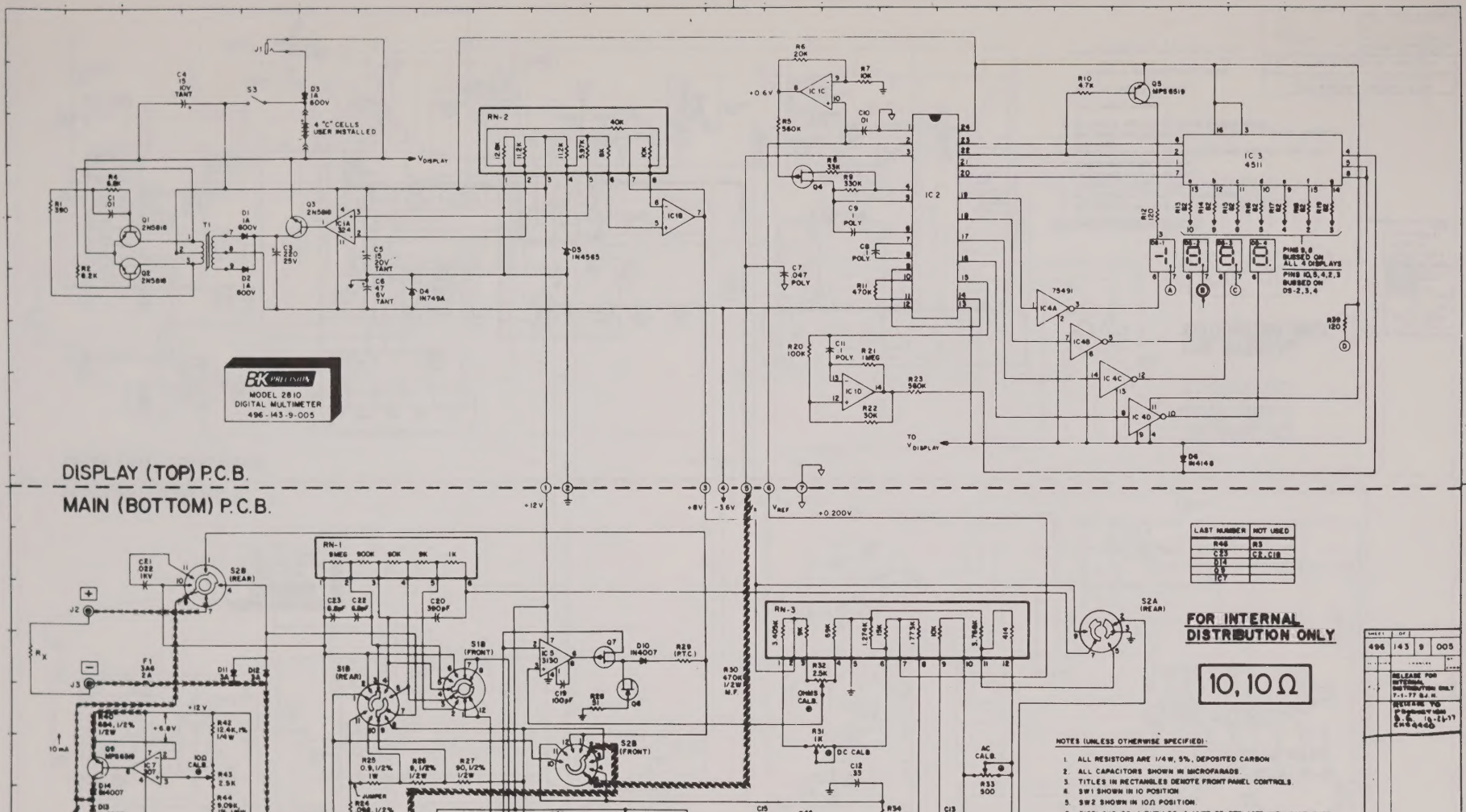
SHEET	OF
496	143	9	001

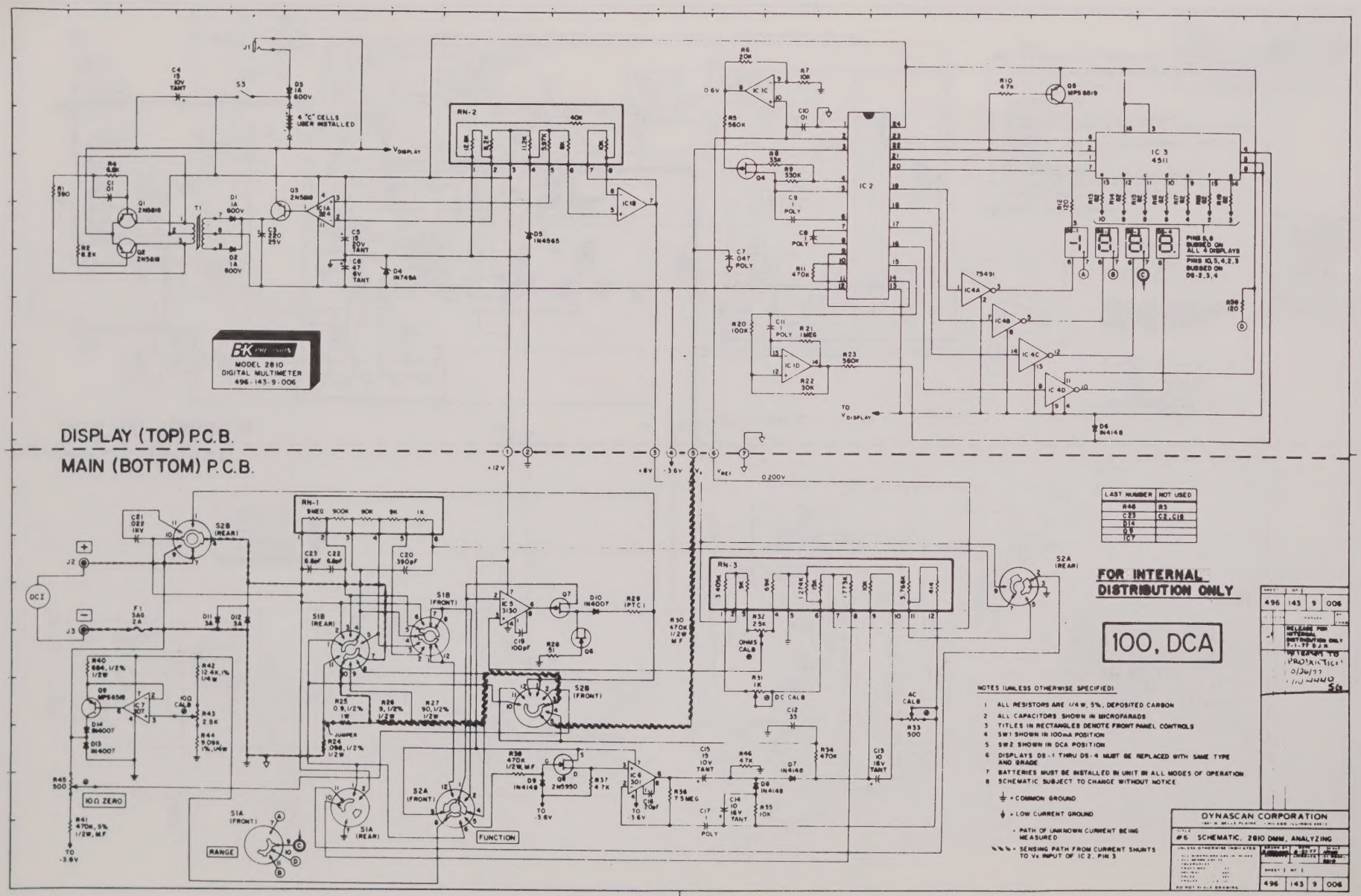
Rel. to Procedure Op 9440 10/26/77 #3.

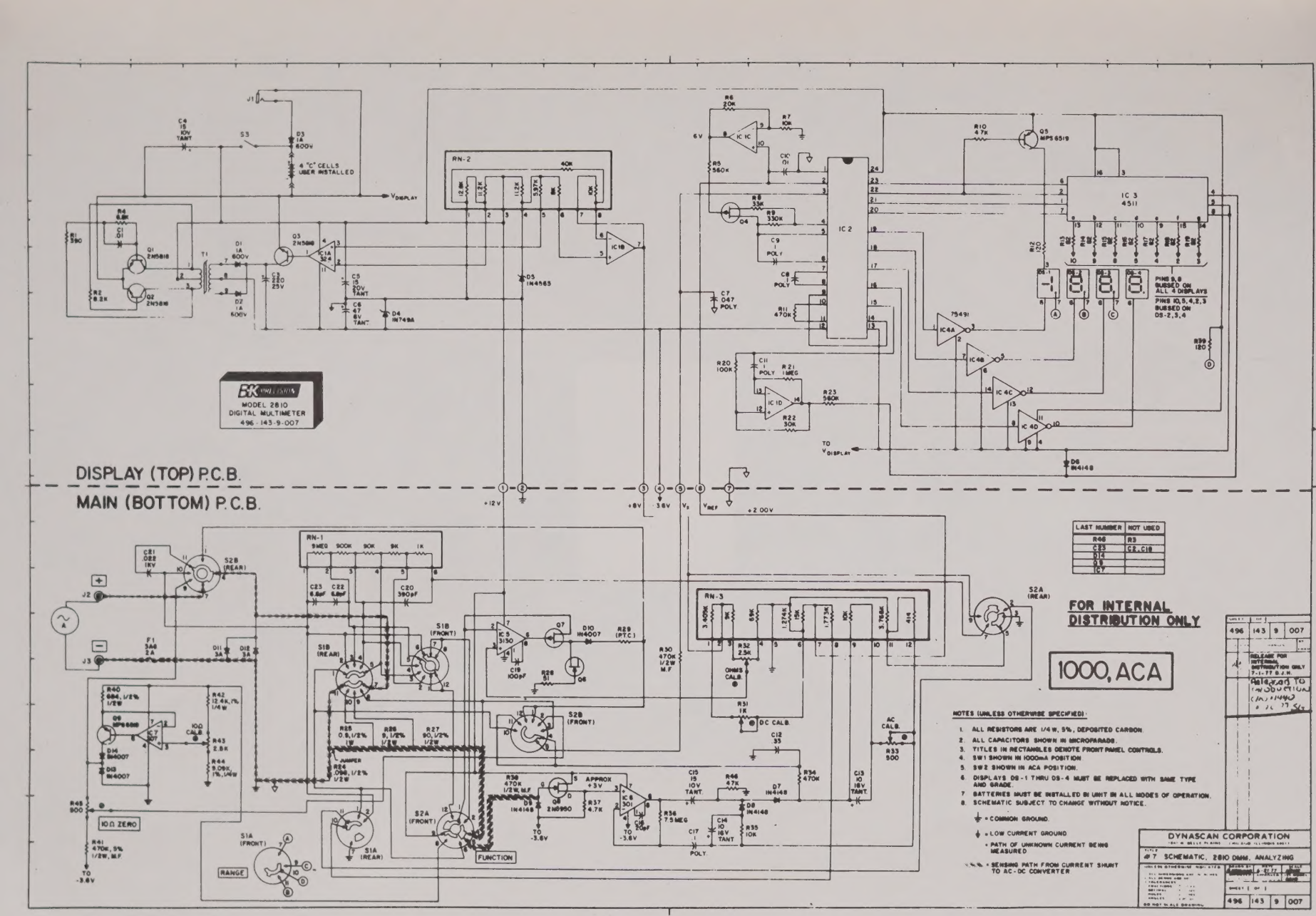

B&K PRECISION
MODEL 2810
DIGITAL MULTIMETER
496-143-9-002
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
+12V
+8V
-3.6V
2.00V
10, ACV
FOR INTERNAL DISTRIBUTION ONLY
LAST NUMBER | NOT USED
R48 | R3
C23 | C2, C18
D14
Q8
IC7
NOTES (UNLESS OTHERWISE SPECIFIED)
1 ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON
2 ALL CAPACITORS SHOWN IN MICROFARADS
3 TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS
4 SW1 SHOWN IN 10 POSITION
5 SW2 SHOWN IN ACV POSITION
6 DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE
7 BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION
8 SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE
= COMMON GROUND
= LOW CURRENT GROUND
* CURRENT PATH OF VOLTAGE APPEARING AT THE INPUT
** THE OUTPUT OF THE INPUT DIVIDER CIRCUIT TO THE AC DC CONVERTER
DYNASCAN CORPORATION
#2 SCHEMATIC, 2810 Dmm, ANALYZING
496 143 9 002
RELEASE FOR INTERNAL DISTRIBUTION ONLY
7-1-77 D/M


DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
B&K PRECISION
MODEL 2810
DIGITAL MULTIMETER
496 143 9 003
10 MΩ, HIGH OHMS
FOR INTERNAL DISTRIBUTION ONLY
DYNASCAN CORPORATION
#3 SCHEMATIC, 2810 OHM, ANALYZING
496 143 9 003
LAST NUMBER | NOT USED
R46 | R3
C23 | C2, C18
D14
Q9
IC7
NOTES (UNLESS OTHERWISE SPECIFIED)
1 ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON
2 ALL CAPACITORS SHOWN IN MICROFARADS
3 TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS
4 SW1 SHOWN IN 10MΩ POSITION
5 SW2 SHOWN IN HIGH OHMS POSITION
6 DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE
7 BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION
8 SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE
= COMMON GROUND
= LOW CURRENT GROUND
= THE I_R CONSTANT CURRENT SOURCE PATH
= V ACROSS R_X TO V_X INPUT OF IC 2, PIN 3


DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
MODEL 2810
DIGITAL MULTIMETER
496-143-9-004
FOR INTERNAL DISTRIBUTION ONLY
100Ω, LOW OHMS
DYNASCAN CORPORATION
SCHEMATIC, 2810 Does Analyzing
496 143 9 004
NOTES (UNLESS OTHERWISE SPECIFIED)
1 ALL RESISTORS ARE 1/4W, 5%, DEPOSITED CARBON
2 ALL CAPACITORS SHOWN IN MICROFARADS
3 TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS
4 SW1 SHOWN IN 100Ω POSITION
5 SW2 SHOWN IN LOW OHMS POSITION
6 DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE
7 BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION
8 SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE
RANGE
FUNCTION
100Ω ZERO
OHMS CALB
DC CALB
AC CALB


BK PRECISION
MODEL 2810
DIGITAL MULTIMETER
496-143-9-005
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
FOR INTERNAL DISTRIBUTION ONLY
10, 10 Ω
LAST NUMBER | NOT USED
R46 | R5
C23 | C2, C18
D14
Q9
IC7
NOTES (UNLESS OTHERWISE SPECIFIED):
1. ALL RESISTORS ARE 1/4W, 5%, DEPOSITED CARBON
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 10 Ω POSITION.
5. SW2 SHOWN IN 10Ω POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.
= COMMON GROUND
= LOW CURRENT GROUND
= THE I_p CONSTANT CURRENT SOURCE PATH
= V ACROSS R_X TO V_X INPUT OF IC 2, PIN 3
DYNASCAN CORPORATION
SCHEMATIC, 2810 DMM, ANALYZING
496 | 143 | 9 | 005


B&K PRECISION
MODEL 2810
DIGITAL MULTIMETER
496-143-9-006
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
FOR INTERNAL DISTRIBUTION ONLY
100, DCA
DYNASCAN CORPORATION
#6 SCHEMATIC, 2810 DMM, ANALYZING
496 143 9 006
NOTES (UNLESS OTHERWISE SPECIFIED)
1 ALL RESISTORS ARE 1/4W, 5%, DEPOSITED CARBON
2 ALL CAPACITORS SHOWN IN MICROFARADS
3 TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS
4 SW1 SHOWN IN 100mA POSITION
5 SW2 SHOWN IN DCA POSITION
6 DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE
7 BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION
8 SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE
= COMMON GROUND
= LOW CURRENT GROUND
= PATH OF UNKNOWN CURRENT BEING MEASURED
= SENSING PATH FROM CURRENT SHUNTS TO Vx INPUT OF IC 2, PIN 3
LAST NUMBER NOT USED
R46 R45
C33 C2, C18
D14
Q9
IC7
RELEASED FOR INTERNAL DISTRIBUTION ONLY 7-1-77 D.J.R.
INTERIM TO PRODUCTION 5/26/77 D.J.R.
DO NOT SCALE DRAWING
SHEET 1 OF 1


B&K PRECISION
MODEL 2810
DIGITAL MULTIMETER
496-143-9-007
DISPLAY (TOP) P.C.B.
MAIN (BOTTOM) P.C.B.
4 "C" CELLS USER INSTALLED
FOR INTERNAL DISTRIBUTION ONLY
1000, ACA
NOTES (UNLESS OTHERWISE SPECIFIED):
1. ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON.
2. ALL CAPACITORS SHOWN IN MICROFARADS.
3. TITLES IN RECTANGLES DENOTE FRONT PANEL CONTROLS.
4. SW1 SHOWN IN 1000mA POSITION.
5. SW2 SHOWN IN ACA POSITION.
6. DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND GRADE.
7. BATTERIES MUST BE INSTALLED IN UNIT IN ALL MODES OF OPERATION.
8. SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.
= COMMON GROUND.
= LOW CURRENT GROUND.
= PATH OF UNKNOWN CURRENT BEING MEASURED.
= SENSING PATH FROM CURRENT SHUNT TO AC-DC CONVERTER
DYNASCAN CORPORATION
SCHEMATIC, 2810 DMM, ANALYZING
496 143 9 007

LAST NUMBER	NOT USED
R48	R3
C23	C2, C18
D14	
Q9	
IC7	

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1034053

494-057-9-002